

REMARKS

Claim 1 and 8 have been amended to re-insert the article "a" before the phrase "money handling apparatus." The article was inadvertently omitted from the text of claims 1 and 8 in the previously filed Preliminary Amendment.

Declaration

As required by the Examiner, a new declaration by the inventors is enclosed.

Information Disclosure Statement

The Office action states that the Information Disclosure Statement (IDS) filed on December 20, 2004 did not indicate the dates of the listed documents. A supplemental IDS is submitted herewith.

Claim Rejections

In the Office action, the claims were rejected over the following references:

(1) Claims 1-5 were rejected as unpatentable over U.S. Patent No. 6,250,452 (Partyka et al.) in view of U.S. Patent No. 4,669,596 (Capers et al.).

(2) Claim 6-10 and 12-14 were rejected as unpatentable over the Partyka et al. patent in view of the Capers et al. patent and further in view of U.S. Patent No. 5,694,326 (Warn et al.).

(3) Claim 11 was rejected as unpatentable over the Partyka et al. patent in view of the Capers et al and Warn patents further in view of U.S. Patent No. 6,119,053 (Taylor et al.).

(4) Claims 15-23 were rejected as unpatentable over the Partyka et al. patent in view of the Taylor et al. patent.

In view of the following remarks, applicant respectfully requests reconsideration.

Independent claim 1 recites a device for handling money that includes a money handling apparatus, an internal controller for handling the money handling apparatus, a first port for

connection to an external controller, and a second port for connection to a further device for handling money.

The Office action alleges that the components of the vending data collection system disclosed by the Partyka et al. patent correspond to the claimed features as follows:

| <u>Partyka et al. patent</u> | <u>Claimed feature</u> |
|-----------------------------------|-------------------------------|
| location unit 104 | money handling apparatus |
| microcontroller 120 | internal controller |
| digital computer of host unit 106 | external controller |
| vending machine | further money handling device |

That is incorrect. First, the location unit 104 is not a “money handling apparatus.” Examples of money handling apparatus include a banknote validator, a coin dispenser and a card reader (*see, e.g.,* pending claims 2 and 3). In contrast, the location unit 104 of the Partyka et al. patent does not handle money. Instead, as described by the Partyka et al. patent, the location unit 104 receives and stores data indicative of vends in the vending machines 10 and then provides discrete transaction data indicative of the vends to the host unit 106 (col. 5, lines 54-55 and 59-61).

Furthermore, although applicant acknowledges that the vending machines 10 disclosed by the Partyka et al. patent may include money handling apparatus such as a coin changer or bill validator (*see, e.g.,* col. 1, lines 15-21), the location unit 104 (which allegedly corresponds to the claimed “money handling apparatus”) is not connected to, and does not communicate with, such devices in the vending machines. Instead, according to the Partyka et al. patent, the location unit 104 is connected to, and communicates with, a microcontroller 110 in the vending machine’s machine unit 102 (*see* FIGS. 2-4 and corresponding written description). As explained in the following paragraph, the machine unit 102 in the vending machine 10 is not a “money handling device.” Therefore, even if the location unit 104 were considered to correspond to the claimed

“money handling apparatus,” it does not have a second port for connection to a “further device for handling money” as recited in claim 1.

As stated in the foregoing paragraph, the machine unit 102 in the vending machine is not a “money handling device.” The Partyka et al. patent explains the functions performed by the machine unit 102, which includes microcontroller 110 and memory 116 (FIG. 3). The microcontroller 110 monitors various signals in the vending machine and causes discrete transaction information to be stored in the memory 116. (Col. 6, lines 20-50) The transaction information indicates the particular bin from which the product was vended (col. 6, lines 51-53). Subsequently, the location unit 104 retrieves the transaction information from the machine unit 102. It appears from the Partyka et al. patent that money collection data also is transmitted from the machine unit 102 to the location unit 104 to be forwarded to the host unit 106 (*see* col. 8, lines 26-37). However, there is nothing in the Partyka et al. patent that would suggest that the machine unit 102 itself handles money. Instead, those functions presumably would be performed by a separate coin changer or bill validator. There is absolutely nothing in the Partyka et al. patent to suggest the location unit 104 is connected (removably or otherwise) to a “further device for handling money,” as recited in claim 1.

Moreover, in view of the fact that the microcontroller 120 of the location unit 104 is not arranged to communicate with a “money handling device” in the vending machine 10, the Partyka et al. patent, therefore, also does not disclose or suggest that “the internal controller [for controlling the money handling apparatus] is arranged to communicate over the second port with the further device [for handling money],” as recited in pending claim 1.

The Capers et al. patent discloses a vending machine accessory unit that permits dual-mode machine operation with either a coded card or money. The Office action relies on the Capers et al. patent for its disclosure of detachable, or removable, connections. However, even if there were some motivation to use such detachable or removable connections in the Partyka et al. patent, that would not address the features missing from the Partyka et al. patent discussed above.

Furthermore, claim 1 recites that the internal controller “is arranged to communicate over the second port with the further device using a communications protocol” that “supports communication between the internal controller and any one of at least first and second *different* types of device for handling money, the first type handling money of a *different* type from those handled by the second type.” Neither the Partyka et al. patent nor the Capers et al., alone or in combination, discloses or suggests those features. For example, there is no indication in the Partyka et al. patent that the machine units 102 in the vending machines 10 differ from one another. Similarly, the Capers et al. patent discloses that the accessory unit 30 (130, 230) is arranged to communicate with a money handling unit 20 (120, 220). There is no suggestion that the accessory unit uses a communication protocol that supports any one of multiple, different types of money handling devices.

The Ward et al. patent also does not disclose the features missing from the other references.

At least for the foregoing reasons, independent claim 1 and dependent claims 2-6 should be allowed.

The other independent claims are distinguishable at least for reasons similar to those discussed above in connection with claim 1.

For example, claim 7 recites a method of communication “for a money handling apparatus.” As explained above, the location unit 104 of the Partyka et al. patent is a “money handling apparatus.” Claim 7 also recites that the method includes communicating with “a further money handling apparatus” over a second port. Contrary to the statements in the Office action, and as explained above, the machine units 102 in the vending machines 10 of the Partyka et al. patent also are not “money handling apparatus.” Nor, as discussed above, do the cited references disclose or suggest “communicating . . . by means of a communications protocol supporting communication with any one of at least first and second *different* types of device for handling money, the first type handling money of a *different type* from that handled by the

second type.” Therefore, even if the Partyka et al. patent somehow were combined with the other references, that would not result in the claimed subject matter.

Therefore, claim 7 also should be allowed.

Likewise, independent claim 8 recites a device for handling money that includes a “money handling apparatus” and a second port for connection to a “further device for handling money.” At least for the reasons discussed in connection with claim 1, the Partyka et al. patent does not disclose those features. Nor is there any suggestion of the claimed subject matter as a whole in that patent alone or in combination with the other cited references. Therefore, claims 8-11 should be allowed as well.

Independent claim 14 recites a method of communication “for a money handling apparatus.” As explained above, the location unit 104 of the Partyka et al. patent is a “money handling apparatus.” Claim 14 also recites that the method includes communicating with “a further money handling apparatus” over a second port. Contrary to the statements in the Office action, and as explained above, the machine units 102 in the vending machines 10 of the Partyka et al. patent also are not “money handling apparatus.” Therefore, even if the Partyka et al. patent somehow were combined with the other references, that would not result in the claimed subject matter.

Claims 15-23 were rejected as unpatentable over the Partyka et al. patent in view of the Taylor et al. patent.

Applicant disagrees with the way the Office action applies the Partyka et al. patent to claims 15-23 for the reasons discussed above.

Furthermore, the Office action acknowledges that the Partyka et al. patent “fails to disclose a conversion of first units of value to second units of value used for communications over” first and second ports. The Office action, however, relies on the Taylor et al. patent as

allegedly suggesting that such a feature should be used in the Partyka et al. vending data collection system. Applicant respectfully disagrees.

The Taylor et al. patent a vending machine dual bus architecture to allow a vending machine controller 102 to operate with peripheral devices 110, 112, 118, 120 using different protocols. Different buses 108, 116 are used, respectively, for peripheral devices, depending on which protocol is used.

Although the Taylor et al. patent notes the *possibility* of converting from one protocol to another, that patent, in fact, *teaches away* from using that approach:

Among the components of a vending machine, the UART devices in the interfaces 106 and 114 are comparable, and second only, in cost to the processor embodying the main controller 102. While more cost effective than, e.g., re-engineering a VCCS-based peripheral to operate directly according to the MDB protocol or providing a custom designed converter for converting from the VCCS protocol to MDB protocol, the embodiment of FIG. 1 is more expensive than the embodiment of FIG. 2. Hence the embodiment of FIG. 2 is preferred.

(Col. 4, lines 28-34) The Taylor et al. patent clearly indicates that both embodiments (*i.e.*, the embodiment of FIG. 1 and that of FIG. 2) are less costly and, therefore, are preferred over re-engineering or custom design to allow conversion between protocols. Therefore, a person of ordinary skill would not be motivated to use such a conversion in the system of the Partyka et al. patent. Even if such a conversion were used, that would not result in the claimed subject matter for the reasons discussed above with respect to the Partyka et al. patent.

Applicant also notes that independent claims 15 and 19 do not simply recite converting information from one protocol to another protocol. Instead, those claims recite converting between first "units of value" to second "units of value." Thus, the money handling apparatus can convert, for example, between the denominations of currencies represented in the different protocols. An example in the pending application is explained as follows:

In one example, a bill validator arranged to receive and validate Euro banknotes is connected via the second port P2 to the changer 110, which is

arranged to receive and dispense British Sterling coins. The smallest bill recognised by the validator is a five Euro note. and the validator outputs the value of a recognised bill to the second port P2 in units of five Euros. For example, if a twenty Euro bill is validated, a value byte will be output with a value of 4. The changer 130 accepts 5, 10, 20, 50 pence and .English Pound.1 coins, and outputs values over the first port P1 in units of 5 pence. The value of these units is set by a predetermined scaling factor SF, which scaling factor is stored within the controller 130.

For example, if a 50 pence coin is validated, this will be represented as 10 units. Hence, the units output by the changer 110 are not equal in value to the units output by the bill validator. The microcontroller 400 converts the units of the bill validator to those of the changer 110 by multiplying by a factor input by the operator. In this case, if the exchange rate for one Euro is 70 pence, the factor will be $1/70$ (approximately 0.014), since $5 \text{ Euros}/70=5 \text{ pence}$.

This factor is also used by the microcontroller 400 to convert commands including a value to the appropriate units. For example, to prevent acceptance of bills greater than 5 Euros, the microcontroller 400 sends a command over the second port P2 indicating the maximum value to be accepted, and indicates the value as '1'. This command may be issued in response to a command from the controller 130 to limit the amount of accumulated credit to .English Pound.4 sterling. The microcontroller 400 infers from the value of the factor that the bill validator should not accept more than 5.71 Euros, which is rounded down to an integral number of units, in this case one unit

Thus, although the Taylor et al. patent discloses converting signals from one protocol to another, there is no disclosure or suggestion of converting "units of value" as recited in some of the pending claims.

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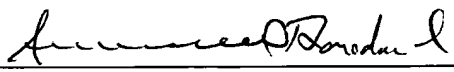
In view of the foregoing remarks, applicant respectfully requests reconsideration and withdrawal of the rejections.

It is believed that all of the pending claims have been addressed. However, the absence of a reply to a specific rejection, issue or comment does not signify agreement with or concession of that rejection, issue or comment. In addition, because the arguments made above may not be exhaustive, there may be reasons for patentability of any or all pending claims (or other claims) that have not been expressed. Finally, nothing in this paper should be construed as an intent to concede any issue with regard to any claim, except as specifically stated in this paper, and the amendment of any claim does not necessarily signify concession of unpatentability of the claim prior to its amendment.

Enclosed is a check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050.

Respectfully submitted,

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